

WHAT IS CLAIMED IS:

1. Power supply equipment for a motor vehicle, comprising a motor generator, an inverter for driving said motor generator, a battery and a capacitor of an electrical double layer,

wherein said capacitor is directly connected to a DC side of said inverter and said battery is connected in parallel with said capacitor via first switching means.

2. The power supply equipment for a motor vehicle according to claim 1, further comprising:

control means for turning off said first switching means in the start-up of an engine to separate said battery from said capacitor and for turning on said first switching means after the start-up of the engine to connect said battery to said capacitor.

3. The power supply equipment for a motor vehicle according to claim 2, further comprising:

a series circuit of a resistor and second switching means being connected in parallel with said first switching means.

4. The power supply equipment for a motor vehicle according to claim 3, wherein:

said control means determines which of said first and second switching means should be turned on, depending on a difference in voltage between said capacitor and said battery when said battery and said

capacitor are connected by said first or second switching means.

5. The power supply equipment for a motor vehicle according to claim 1, further comprising:

 a second capacitor connected in parallel with said first-mentioned capacitor between said inverter and said capacitor for eliminating high frequency ripples.

6. The power supply equipment for a motor vehicle according to claim 1, wherein:

 said first switching means comprises a diode conductible at all times so as to allow an electrical current to flow from said inverter to said battery.

7. The power supply equipment for a motor vehicle according to claim 1, wherein:

 said first switching means comprises a diode conductible at all times so as to allow an electrical current to flow from said battery to said inverter.

8. Power supply equipment for a motor vehicle, comprising a motor generator, an inverter for driving said motor generator, a battery and a capacitor of an electrical double layer,

 wherein said battery has a plurality of different (higher and lower) voltage terminals;

 said capacitor being directly connected to a DC side of said inverter;

 said capacitor being connected on its higher voltage side to a higher voltage terminal of said

battery via first switching means; and
said capacitor being connected on its higher
voltage side to a lower voltage terminal of said
battery via second switching means.